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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,307

02/06/2004

Nicola Funnell

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RESEARCH IN MOTION
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EXAMINER

NGO, NGUYEN HOANG

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

02/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,307

Applicant(s)

FUNNELL ET AL.

Examiner

Nguyen Ngo

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This communication is in response to the amendment of November 5, 2007. All changes made to the Claims have been entered. Accordingly, Claims 1-9 are currently pending in the application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 recites the limitation "each/said user device" in lines 4 and 14. There is insufficient antecedent basis for this limitation in the claim. Examiner suggest using, "each/said communication device".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yi et al. (US 2003/0007459), hereinafter referred to as Yi.

Regarding claim 1, Yi discloses a method of operating a communication device in a mobile communications network (par. 0003, lines 1-3, method for re-transmitting data or

control information in the radio link control layer of an IMT-2000 radio communication system), the device operating using a protocol (par. 0015 protocol data unit) having a physical layer (fig. 1, Transport Channel PHY; par. 0011, line 5, Physical Layer), and at least an RRC (radio resource control) layer (fig. 1, RRC (third layer)) and an RLC (radio link control) layer (fig. 1, RLC (second layer)) of a UMTS system (par. 0006, lines 7-10, UMTS), wherein the RRC layer is arranged to submit (fig. 1, connection between RRC and RLC) an SDU (fig. 2, RLC SDU; par. 0019, lines 1-4, RLC SDU comes from the upper layer) to the RLC layer (par. 0019, lines 1-5, RLC layer performs segmentation and concatenation of the RLC SDU) for communication (par. 001.5, transmitted to the MAC layer) using the physical layer (fig. 1, connections among RRC layer, RLC layer and Transport Channel PHY), the method comprising;

in response to a signal (par. 0024, RLC layer receives the state information with which success of transmission can be judged; par. 0058, line 4, sender reports the status) from said RLC layer (par. 0024, RLC layer receives the state information with which success of transmission can be judged), said signal being indicative of discard (par. 0024, RLC layer receives the state information with which success of transmission can be judged) of said SDU:

causing said RRC layer to resubmit (par. 0085, lines 10-11, the information is re-transmitted) said SDU to said RLC layer a predetermined number N (par. 0085, lines 12-15, when the state variable becomes same as or larger than the critical value, the retransmission process is terminated; fig. 7, process steps 71, 72, 73, 74, 75) of times;

and in response to N further signals (fig. 7, process steps 71, 72, 73, 74, 75) indicative (fig. 7, transmission success question step 73) of said discard, causing said RRC layer to submit (par. 0082, lines 11-13, the sender sends a reset instruction for instructing reset of the radio link control layer to the receiver) to said RLC layer (par. 0093, lines 13-14, error processing process, such as reset of the RLC layer) a CELL UPDATE (par. 0042 line 5, further restoration is impossible) message indicative of an unrecoverable error (par. 0042, line 5, further restoration is impossible) in said RLC layer for emission in response thereto.

Regarding claim 2, Yi further comprising setting an operating mode (par. 0024, lines 1-2, acknowledged mode) wherein an acknowledgement (par. 0027, line 6, positive acknowledgement) of successful reception (par. 0027, line 5, received RLC PDU) of said SDU is awaited (par. 0024, lines 1-2, acknowledged mode).

Regarding claim 3, Yi discloses wherein $N=0$ (par. 0023, lines 1-3, unacknowledged mode, wherein re-transmission is not supported). The examiner notes that having no re-transmission is equivalent to re-transmitting zero times.

Regarding claim 4, Yi discloses a method of operating a mobile communications network having at least one cell, said cell having at least one user communication device and at least one network control device for communicating with each user communication device (par. 0003, lines 1-3, method for re-transmitting data or control

information in the radio link control layer of an IMT-2000 radio communication system), each user device operating using a protocol (par. 0015 protocol data unit) having a physical layer (fig. 1, Transport Channel PHY; par. 0011, line 5, Physical Layer), a user layer (par. 0011, line 5, user plane) and at least an RRC (radio resource control) layer (fig. 1, RRC (third layer)) and an RLC (radio link control) layer (fig. 1, RLC (second layer)) of a UMTS system (par. 0006, lines 7-10, UMTS), wherein the RRC layer is arranged to submit (fig. 1, connection between RRC and RLC) an SDU (fig. 2, RLC SDU; par. 0019, lines 1-4, RLC SDU comes from the upper layer) to the RLC layer (par. 0019, lines 1-5, RLC layer performs segmentation and concatenation of the RLC SDU) for communication (par. 0015, transmitted to the MAC layer) using the physical layer (fig. 1, connections among RRC layer, RLC layer and Transport Channel PHY), wherein said SDU comprises information (par. 0005, lines 15-18, multimedia services, such as voice, video, and data) indicative of a process (par. 0005, lines 15-18, multimedia services, such as voice, video, and data), the method comprising;

in response to a signal (par. 0024, RLC layer receives the state information with which success of transmission can be judged; par. 0058, line 4, sender reports the status) from said RLC layer (par. 0024, RLC layer receives the state information with which success of transmission can be judged), said signal being indicative of discard (par. 0024, RLC layer receives the state information with which success of transmission can be judged) of said SDU, causing said RRC layer to resubmit (par. 0085, lines 10-11, the information is re-transmitted) said SDU to said RLC layer a predetermined number N (par. 0085, lines 12-15, when the state variable becomes same as or larger

than the critical value, the retransmission process is terminated; fig. 7, process steps 71, 72, 73, 74, 75) of times;

in response to N further signals (par. 0042, lines 1- 2, VT (RST) represents the number that the RST instruction is sent) indicative of said discard (par. 0042, lines 1-3, VT (RST) represents the number that the RST instruction is sent and the value is increased by one whenever the sender sends the RESET PDU), submitting (par. 0042, lines 5-6, notifies such condition to the upper layer) by said RRC layer to said RLC layer of a CELL UPDATE (par. 0042, line 5, further restoration is impossible) message arranged to cause said user device to reconfigure to a determined state (par. 0039, lines 4-5, resets the operation of the RLC layer; fig.5, process steps 51-55).

Regarding claim 5, Yi further comprising setting an operating mode (par. 0024, lines 1-2, acknowledged mode) wherein an acknowledgement (par. 0027, line 6, positive acknowledgement) of successful reception (par. 0027, line 5, received RLC PDU) of said SDU is awaited (par. 0024, lines 1-2, acknowledged mode).

Regarding claim 6, Yi discloses wherein $N=0$ (par. 0023, lines 1-3, unacknowledged mode, wherein re-transmission is not supported). The examiner notes that having no re-transmission is equivalent to re-transmitting zero times.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yi (US 2003/0007459) in view of Brame et al. (US 5253253), hereinafter referred to as Yi and Brame.

Regarding claim 7, Yi discloses a method of operating a communication device in a mobile communications network (par. 0003, lines 1-3, method for re-transmitting data or control information in the radio link control layer of an IMT-2000 radio communication system), the device operating using a protocol (par. 0015 protocol data unit) having a physical layer (fig. 1, Transport Channel PHY; par. 0011, line 5, Physical Layer), and at least an RRC (radio resource control) layer (fig. 1, RRC (third layer)) and an RLC (radio link control) layer (fig. 1, RLC (second layer)) of a UMTS system (par. 0006, lines 7-10, UMTS), wherein the RRC layer is arranged to submit (fig. 1, connection between RRC

and RLC) an SDU (fig. 2, RLC SDU; par. 0019, lines 1-4, RLC SDU comes from the upper layer) to the RLC layer (par. 0019, lines 1-5, RLC layer performs segmentation and concatenation of the RLC SDU) for communication (par. 001.5, transmitted to the MAC layer) using the physical layer (fig. 1, connections among RRC layer, RLC layer and Transport Channel PHY), the method comprising;

in response to a signal (par. 0024, RLC layer receives the state information with which success of transmission can be judged; par. 0058, line 4, sender reports the status) from said RLC layer (par. 0024, RLC layer receives the state information with which success of transmission can be judged), said signal being indicative of discard (par. 0024, RLC layer receives the state information with which success of transmission can be judged) of said SDU, causing said RRC layer to resubmit (par. 0085, lines 10-11, the information is re-transmitted) said SDU to said RLC layer a predetermined number N (par. 0085, lines 12-15, when the state variable becomes same as or larger than the critical value, the retransmission process is terminated; fig. 7, process steps 71, 72, 73, 74, 75) of times.

Yi however fails to specifically disclose releasing the connection between peer layers at the said device and the said network device and entering idle mode. Brame however discloses a message bus slot update/idle control in RF trunking multisite switch, comprising releasing connection (col.5 lines 8, connections are terminated) between peer layers (fig.4, call to console) at the said device and the said network and entering an idle mode (col.5, line 7, slot idle messages). It would have thus been obvious to a person skilled in the art at the time the invention was made to modify the

system of Yi by using features as taught by Brame in order to allow a caller in one site area to communicate with a callee in another area (Brame et al., col2, lines 16-19).

Regarding claim 8, Yi further comprising setting an operating mode (par. 0024, lines 1-2, acknowledged mode) wherein an acknowledgement (par. 0027, line 6, positive acknowledgement) of successful reception (par. 0027, line 5, received RLC PDU) of said SDU is awaited (par. 0024, lines 1-2, acknowledged mode).

Regarding claim 9, Yi discloses wherein $N=0$ (par. 0023, lines 1-3, unacknowledged mode, wherein re-transmission is not supported). The examiner notes that having no re-transmission is equivalent to re-transmitting zero times.

Response to Arguments

8. Applicant's arguments filed 11/5/2007 have been fully considered but they are not persuasive.

The applicant argued that, Yi fails to teach, or even suggest a distinguishing feature recited in independent Claim 1, namely:

"in response to a signal from said RLC layer, said signal being indicative of discard of said SDU, causing said RRC layer to resubmit said SDU to said RLC layer a predetermined number N of times and in response to N further signals indicative of said discard, causing said RRC layer to submit to said RLC layer a CELL UPDATE message indicative of an unrecoverable error in said RLC layer for emission in response thereto"

These arguments are not persuasive because "N" is not defined in claim 1

Assuming $N=0$, the RRC layer resubmit the SDU to the RLC layer zero times, In other words, there is no resubmit of SDU to the RLC layer and there is zero further signals indicative of the discard. For these reasons, the reference meets the claimed limitations at least in the case when $N=0$. Similar rationale is applied to claims 4 and 7.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571)272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

Application/Control Number:
10/774,307
Art Unit: 2616

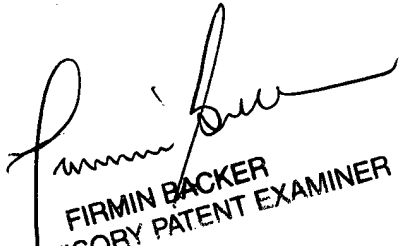
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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